個人電腦作業 PP (10%)

For the Quick-Return Mechanism (R1, pp. 107), please find:

- (a) The position of points B and C with respect to θ_2 (0 to 360 degrees, 5 degrees each step) if $O_AO_B = 2.5$ ", $O_AA = 1.2$ ", $O_BB = 4$ ", BC = 3". The offset distance between O_A and the slider plane is 1.5".
- (b) The stroke of the mechanism.
- (c). The linear velocity of points B and C and the angular velocity of each moving link if ω_2 = 10 rpm
- (d). The linear acceleration of points B and C and the angular acceleration of each moving link if $\alpha_2 = 2 \text{ rad./sec}^2$



The result of (a) should be tabulated, plotted and include:

- 1. The formulation of problem (including loop equations, parameters identification, constraint equations, displacement/velocity/acceleration equations).
- 2. The procedure of numeric method used.
- 3. The program list and explanation(s).
- 4. Animation. (optional +)

You can choose your favorite computer language.

■ Format & Deadline

報告內容整理請以 PowerPoint 格式製作(學號 pp.ppt), animation 請輸出成 windows XP 作業系統可直接觀看之格式(學號 pp.副檔名; 副檔名: mp4 (建議), gif, avi...),檔案於 <u>2015.11.02 23:59 pm</u>前上傳至 FTP 站台: 140.112.46.200 (username: pp, password: pp)。In-class Presentation at 11/03/'15